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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,900	07/27/2000	Christian Buchler	RCA 90 , 264	2547

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EXAMINER

CHU, KIM KWOK

ART UNIT PAPER NUMBER

2653

DATE MAILED: 11/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/626,900

Applicant(s)

BUCHLER ET AL.

Examiner

Kim-Kwok CHU

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Pre-Amendment filed on 7/27/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 27 July 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Objections

1. Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

(a) in claim 16, line 1, the term "Method according to claim 9" is an error because claim 9 is an apparatus claim. Claim 16 should be depended on the method claim 15.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) in claim 1, line 8, the term "an intermediate track detector" is not clear. The term "intermediate track" can be a land, a groove or a central part of the land/groove. The

specification does not clearly describe it and Applicant should define this vague term; and

(b) similarly, in claim 15, line 1, the term "an intermediate track signal" is not clear. The term "intermediate track" can be a land, a groove or a central part of the land/groove. The specification does not clearly describe it and Applicant should define this vague term.

4. The claims not specifically mentioned above are indefinite based upon their dependence.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless -
(e) the invention was described in a patent granted
on an application for patent by another filed in the
United States before the invention thereof by the
applicant for patent, or on an international
application by another who has fulfilled the
requirements of paragraphs (1), (2), and (4) of
section 371(c) of this title before the invention
thereof by the applicant for patent.*

6. Claims 1 and 7 are rejected under 35 U.S.C. § 102(e) as being anticipated by Toda (U.S. Patent 6,377,522).

Toda teaches a land/groove detecting apparatus having all of the elements and means as recited in claims 1 and 7. For

example, Toda teaches the following:

(a) as in claim 1, means 101 for reading or writing data markings of an optical recording medium 100 having data markings arranged along a track (Figs. 1 and 17A);

(b) as in claim 1, means 101 for reading or writing header markings arranged laterally offset with respect to the center of the track (Figs. 1 and 4A);

(c) as in claim 1, a header identification unit 401 (Fig. 5);

(d) as in claim 1, a header sequence detector 402 (Fig. 5; column 17, lines 25-67; header sequence is detected so that the optical beams move from the data area to the header area; header sequence is again detected so that the arithmetic unit 413 recognizes it);

(e) as in claim 1, a track crossing detector 403 (Fig. 5);

(f) as in claim 1, an intermediate track detector 404 for generating an intermediate track signal 117 (Fig. 5);

(g) as in claim 1, the intermediate track detector 404 is connected to outputs of the header identification unit 401, of the track crossing detector 403 and of the header sequence detector 402 (Fig. 5); and

(h) as in claim 7, the header identification unit 401 evaluates a summation signal 114 of the detector signals (Figs. 1 and 5).

7. Claim 15 is rejected under 35 U.S.C. § 102(e) as being anticipated by Toda (U.S. Patent 6,377,522).

Toda teaches a land/groove detecting method having all of the steps as recited in claim 15. For example, Toda teaches the following:

(a) as in claim 15, checking a signal 111, 114 derived from detector elements of an apparatus 101 for the presence of signal components which are typical of header areas (Figs. 1 and 5);

(b) as in claim 15, if the typical signal components are present, determining the order of signal components originating from differently arranged header markings (Fig. 5; a sequence of headers are detected);

(c) as in claim 15, generating a signal 406 corresponding to a track crossing frequency (Fig. 5); and

(d) as in claim 15, generating the intermediate track signal 416 from the order information and the signal corresponding to the track crossing frequency (Fig. 5).

Allowable Subject Matter

8. Claims 2-6, 8-14 and 16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claim 2, the prior art of record fails to teach or fairly suggest a header identification unit, which comprises a high-frequency path, low-frequency path and a signal detector, and has a track error signal applied to it.

As in claim 3, the prior art of record fails to teach or fairly suggest a header sequence detector, which comprises envelope detectors, to which a track error signal is fed, and has outputs connected to a comparator.

As in claim 4, the prior art of record fails to teach or fairly suggest a header sequence detector having a phase detector, which is fed with signals derived from detector elements of a multi-zone detector of the apparatus.

As in claim 5, the prior art of record fails to teach or fairly suggest a track crossing detector which has a track error signal applied to it, and which comprises one of a phase shifter and a peak value detector.

As in claim 8, the prior art of record fails to teach or fairly suggest a validity detector for outputting a validity signal, and a track crossing frequency detector for supplying a track cross signal to the validity detector.

As in claim 16, the prior art of record fails to teach or fairly suggest a step of detecting the track crossing frequency, and, if a limit value is undershot, generating an invalidity signal, which is cancelled only when signal components which are typical of header areas are present once again.

10. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Joo et al. (6,469,979) is pertinent because Joo teaches an optical recording apparatus having a land/groove detecting means.

Iwanaga (6,459,661)) is pertinent because Iwanaga teaches an optical recording apparatus having a header and a track detecting means.

Kizu et al. (6,421,308) is pertinent because Kizu teaches an optical recording apparatus having a header and a PID detecting means.

Lee et al. (6,400,660) is pertinent because Lee teaches an optical recording apparatus having a track address and a mirror region detecting means.

Shim et al. (6,333,902) is pertinent because Shim teaches an optical recording apparatus having a header envelope extractor means.

Van Den Enden et al. (6,269,071) is pertinent because Van Den Enden teaches an optical recording apparatus having a clock mark extractor for distinguishing between two tracks.

Yoon et al. (6,185,170) is pertinent because Yoon teaches an optical recording apparatus having a groove type discriminator.

Miyagawa et al. (6,044,051) is pertinent because Miyagawa teaches a land/groove recording apparatus.

Nagasawa (5,848,050) is pertinent because Nagasawa teaches a sector in a track with a header.

11. Any response to this action should be mailed to:
Commissioner of Patents and Trademarks Washington, D.C. 20231
Or faxed to:

(703) 872-9314 (for formal communications intended for entry. Or:

(703) 746-6909, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

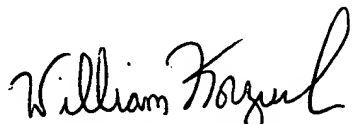
Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (703) 305-3032 between 9:30 am to 6:00 pm, Monday to Friday.

cc 10/31/02

Kim-Kwok CHU
Examiner AU2653
October 31, 2002

(703) 305-3032


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